Cheetah 15K.4

Mainstream enterprise disc drive storage

The Best Price/Performance, Lowest Cost of Ownership Disc Drive

146, 73, and 36 Gbytes—15K RPM—Ultra320 SCSI, Serial Attached SCSI (SAS), 2 Gbit/sec FC and 4 Gbit/sec FC

Key Advantages

- 30 percent more IOPS and more than 20 percent faster response times than 3.5-inch 10K drives
- Enables higher performance with fewer drives, reducing supporting infrastructure, maintenance and space needs, while increasing system reliability
- Highest reliability in the industry—designed for “full duty cycle” applications
- Reduces RAID rebuild times while minimizing reliability risks
- Fastest, coolest, quietest and most reliable Cheetah® 15K ever

Best-Fit Applications

All mainstream enterprise applications, such as:

- E-mail
- Business processing
- Transaction processing
- Decision support
- Storage Area Networks (SAN)
- Networked Attached Storage (NAS)
- Internet and e-commerce

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Lowest Cost of Ownership

- Cheetah 15K performance and reliability enable lower TCO for a wide variety of enterprise applications.
- Cheetah 15K RPM and fast seek times deliver the fastest time-to-data, resulting in 30 percent more IOPS and more than 20 percent faster response times than 3.5-inch 10K drives.
- Cheetah 15K enables higher performance with fewer drives. Fewer drives reduce support infrastructure, physical space requirements and storage management costs.
- Cheetah 15K drives have the highest field-proven reliability in the industry and further increase system reliability due to the need for fewer drives.
- This fourth-generation Cheetah 15K is the fastest, coolest, quietest and most reliable ever.

Highest Reliability

- Seagate-exclusive enhanced Error Correction Code better maintains performance throughout the life of the drive and reduces the probability of lost data.
- Background Media Scan, a Seagate exclusive feature, proactively scans the media for potential defects during drive idle time without using system bandwidth. It enables incipient errors to be corrected before data is lost.
- The Cheetah 15K.4 is designed and manufactured by the same teams that successfully delivered the past three award-winning generations of Cheetah 15K.

World-Class Technical Support

- Certified, experienced support staff
- Rated “Above Average to Excellent” by 95 percent of our customers
- Support lines with the shortest wait times in the industry
- Individually archived case histories for quick reference
- Web-based Q&A forum and autoreply e-mail
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

www.seagate.com
1-800-732-4283 (1-800-SEAGATE)

Specifications		146.8 GB[1]	73.4 GB[1]	36.7 GB[1]
Model Number		ST3146854LW/LC/FC/SS	ST373454LW/LC/FC/SS	ST336754LW/LC/FC/SS
		ST3146954FC (4Gb/s)	ST373554FC (4Gb/s)	ST336854FC (4Gb/s)
Capacity				
Formatted 512 Kbytes/Sector (Gbytes)		146.8	73.4	36.7
External Transfer Rate (Mbytes/sec)				
Ultra320 SCSI		320	320	320
4-Gbit/sec FibreChannel		400	400	400
2-Gbit/sec FibreChannel		200	200	200
3-Gbit/sec Serial Attached SCSI		300	300	300
Performance				
Spindle Speed (RPM)		15K	15K	15K
Average Latency (msec)		2.0	2.0	2.0
Seek Time				
Average Read/Write (msec)		3.5/4.0	3.5/4.0	3.5/4.0
Track-to-Track Read/Write (msec)		0.2/0.4	0.2/0.4	0.2/0.4
Transfer Rate				
Internal (Mbits/sec)		685 to 1142	685 to 1142	685 to 1142
Internal Formatted (Mbytes/sec)		87 to 143	87 to 143	87 to 143
Sustained (Mbytes/sec)		58 to 96	58 to 96	58 to 96
Cache, Multisegmented (Mbytes)		8	8	8
Configuration/Organization				
Discs		4	2	1
Heads		8	4	2
Nonrecoverable Read Errors per Bits Read		1 sector per 10^{15}	1 sector per 10^{15}	1 sector per 10^{15}
MTBF (hours), AFR		1,400,000/0.62%	1,400,000/0.62%	1,400,000/0.62%
Power Management				
Typical (watts)	SCSI	17.5	14.3	13.51
	Fibre Channel	19.36	17.08	15.27
	SAS	19.48	17	15.2
Power Idle (watts)	SCSI	12.0	9.5	8.04
	Fibre Channel	13.7	11.4	9.8
	SAS	14.37	11.95	10.4
Environmental				
Temperature, Operating (°C)		5 to 55	5 to 55	5 to 55
Temperature, Nonoperating (°C)		–40 to 70	–40 to 70	–40 to 70
Shock, Operating: 2 msec (Gs)		60	60	60
Shock, Nonoperating: 2 msec (Gs)		250	250	250
Acoustics Idle (bels—sound power)		3.6	3.2	3.0
Vibration, Operating: <400 Hz (Gs)		1.0	1.0	1.0
Vibration, Nonoperating: <400 Hz (Gs)		3.0	3.0	3.0
Physical				
Height (in/mm)		1.0/25.4	1.0/25.4	1.0/25.4
Width (in/mm)		4.0/101.6	4.0/101.6	4.0/101.6
Depth (in/mm)		5.75/146.05	5.75/146.05	5.75/146.05
Weight (lb/kg)		1.5/0.771	1.5/0.771	1.5/0.771
Warranty				
Limited Warranty (years)		5	5	5

[1] One gigabyte, or GB, equals one billion bytes when referring to hard drive capacity.

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